

COPY FOR CONTINUING
APPLICATION

JC996 U.S. PTO

10/071500



02/08/02

CLAIMS AS ALLOWED

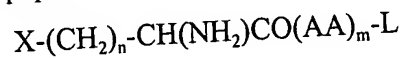
1. A method for manufacturing a composition of matter comprising a solid support and a self-assembled monolayer of linear peptides wherein said peptides are bound to said solid support by a bond between the solid support and a terminal amino acid, comprising the steps:
 - (a) contacting an elastomeric stamp characterized by a relief of said predetermined pattern with a solution containing said linear peptide;
 - (b) contacting said stamp with a surface of said solid support under conditions suitable for the reaction between said linear peptide and said solid surface, wherein said linear peptide reacts with said solid support at points of contact between said stamp and said solid support, corresponding to the predetermined pattern; and
 - (c) removing said stamp.
2. A composition of matter comprising: 1) a solid support; and 2) a printed pattern comprising a self-assembled monolayer of two or more different linear peptides, wherein said peptides are bound to said solid support by a bond between the solid support and a terminal amino acid.
3. A composition of matter comprising: 1) a solid support; 2) and a printed pattern comprising a self-assembled monolayer of linear peptides,
 - wherein said peptides are bound to said solid support by a bond between the solid support and a terminal amino acid,
 - wherein said peptides comprise a terminal reactive group, a central linker and a presenting group selected from the group consisting of antigens, antibodies, antibody

fragments, cellular adhesion motifs, high chain alkyls, hydrophobically blocked amino acids and ligands, and

wherein said peptides are extended beta strands.

4. A composition of matter comprising: 1) a solid support; 2) and a printed pattern comprising a self-assembled monolayer of linear peptides,
 - wherein said peptides are bound to said solid support by a bond between the solid support and a terminal amino acid,
 - wherein said peptides comprise a terminal reactive group, a central linker and a presenting group selected from the group consisting of antigens, antibodies, antibody fragments, cellular adhesion motifs, high chain alkyls, hydrophobically blocked amino acids and ligands,
 - wherein said terminal amino acid is selected from the group consisting of serine, aspartic acid, glutamic acid and cysteine,
 - wherein said central linker comprises between 2 to 50 amino acids, and
 - wherein said central linker is selected from the group consisting of an oligoglycine and oligoalanine.
5. The composition of matter according to Claim 4 wherein said presenting group possesses an affinity to a target molecule.
6. The composition of matter according to Claim 5 wherein the target molecule is a cell surface protein and the presenting group is selected from the group consisting of a ligand, an antibody or an antibody fragment which binds specifically to the cell surface protein.
7. A composition of matter comprising: 1) a solid support; and 2) a printed pattern comprising a self-assembled monolayer of two or more different linear peptides, wherein

said peptides are bound to said solid support by a bond between the solid support and a terminal amino acid, the peptide further being characterized by the formula:



or



wherein X is H, alkyl, alkoxy, alkylthio or dialkylamine, thiol, hydroxy, amino or carboxy;

each AA is independently the same or different and is a naturally-occurring or non-naturally-occurring amino acid;

L is a group which binds specifically or non-specifically to a target ;

n is zero or an integer between 1 to 5; and

m is an integer of at least 2.